Remarks

Claims 1-15 and 17-24 were pending and under consideration.

Claims 1-5, 7 and 18-24 are canceled.

Claim 29 is added.

Claims 6, 8-15, 17 and 29 are now pending and under consideration.

Claims 6, 8-12 and 17 are amended.

Claim 6 is amended to be the independent claim. The additive mixture of claim 6 requires components (A), (B) and (C). The polyolefin waxes of claim 6 are required to have a molecular weight Mw of more than 800 g/mol and less than 20,000 g/mol. Support is found in the specification, page 5, third paragraph.

Claim 8 and 9 are amended to be dependent on claim 6.

Claims 10 and 11 are amended to be dependent on claim 8.

Claims 12 and 17 are amended to depend on claim 6.

New claim 29 corresponds to original claim 27 and depends on claim 6.

No new matter is added.

Claims 1 and 2 are objected to for formal reasons.

Claims 1 and 2 are deleted.

Claims 1-7 and 11 are rejected under 35 USC 102(e) as being anticipated by Lee, U.S. Pat. No. 6,469,088.

Lee discloses in Example 1, a mixture containing
a polypropylene polymer,
HDPE having a melt index of 0.2 g/10 min,
dibenzylidene sorbitol and
N,N'-bis(3-(3',5'-di-t-butyl-4'-hydroxyphenyl)propionyl)hydrazine.

Applicants submit that high density polyethylene (HDPE) of a melt index of 0.2 g/10 min does not read on present component (C). Applicants refer to a Table of the Handbook of Polyolefins edited by C. Vasile and R. B. Seymour, Marcel Dekker, Inc., New York, 1993. A typical correlation between molecular weight Mw and melt index (I_m) is shown. The melt index decreases with increasing molecular weight. For instance, an average molecular weight of 52,000 gives a melt index of 15.1 g/10 min. An average molecular weight of 140,000 gives a melt index 0.21 g/10 min.

The HDPE of Lee has a melt index of 0.2 g/10 min and therefore has a molecular weight Mw of about 140,000 g/mol. The present polyolefin waxes have much smaller molecular weights.

Applicants submit that there is a clear distinction between the present claims and the disclosure of Lee.

Claims 18-24 are rejected under 35 USC 102(b) as being anticipated by Matthijs, et al., WO 02/14045.

Claims 18-24 are canceled.

Claims 1-6 are rejected under 35 USC 102(b) as being anticipated by Handa, et al., U.S. Pat. No. 6,299,801.

Handa is cited as disclosing dibenzylidne sorbitols, IRGANOX MD 1024 (col. 19, lines 10-24) and paraffin waxes, polyethylene wax and fatty amides (col. 13, line 55 – col. 14, line 13).

Handa describes an organic positive temperature coefficient thermistor comprising at least two polymer matrices, a low molecular organic compound and conductive particles, each having spiky protuberances. The definition of the low molecular organic compound includes waxes (claim 14).

The thermistor may further contain various additives, col. 18, line 45 to col. 19, line 40. Among this extensive list are mentioned IRGANOX MD 1024 (present component (B)) and dibenzylidene sorbitol. This list covers hundreds upon hundreds of possible combinations of additives. Nowhere in Lee's disclosure is a fair suggestion which would guide a skilled artisan to the present specific three component additive mixture. To arrive at the present invention from the disclosure of Lee is hindsight analysis.

In view of this discussion, Applicants submit that the rejections over Handa are addressed and are overcome.

Claims 1-15 and 17-24 are rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(b) as obvious over McCullough, EP 911365.

McCullough describes polypropylene impact copolymers of high clarity. According to a preferred embodiment, these copolymers contain clarifying agents such as dibenzylidene sorbitols (para. 0013). In para. 0014, it is mentioned that the copolymers may contain further additives. Among an extensive number of additives, lubricants are also listed. Fatty acid amides including ethylene bis stearamide, oleamide and erucamide are mentioned on line 43 of para. 0014.

Example 2 of McCullough appears to be the closest specific disclosure to the present invention. A combination of ethylene bis stearamide and MILLAD 3988 (a dibenzylidene sorbitol) is disclosed. Example 2 does not disclose present component (B). Further, ethylene bis stearamide is not a wax of the present claims.

On pages 3 and 4 of McCullough, 1,2-bis(3,5-t-butyl-4-hydroxyhydrocinnamoyl)hydrazine (present component (B)), is mentioned among a long list of possible coadditives, page 4, line 5.

Applicants aver that the disclosure of McCullough is not limited enough to direct a skilled artisan to the present three component mixture. There is no working Example or more limited disclosure to provide a fair suggestion of the presently claimed three component mixture. Again, to arrive at the present invention from the disclosure of McCullough is hindsight analysis.

In view of these remarks, Applicants submit that the rejections over McCullough are addressed and are overcome.

In view of the present amendments and the above remarks, Applicants submit that each of the 35 USC 102(e) and 35 USC 102(b) rejections are addressed and are overcome.

The Examiner is kindly requested to reconsider and to withdraw the present rejections.

Applicants submit that the present claims are in condition for allowance and respectfully request that they be found allowable.

Respectfully submitted,

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Attachments: Petition for a 1 month extension of time

Table of the Handbook of Polyolefins edited by C. Vasile and R. B. Seymour, Marcel Dekker, Inc., New York, 1993

Handbook of Polyolefins

Synthesis and Properties

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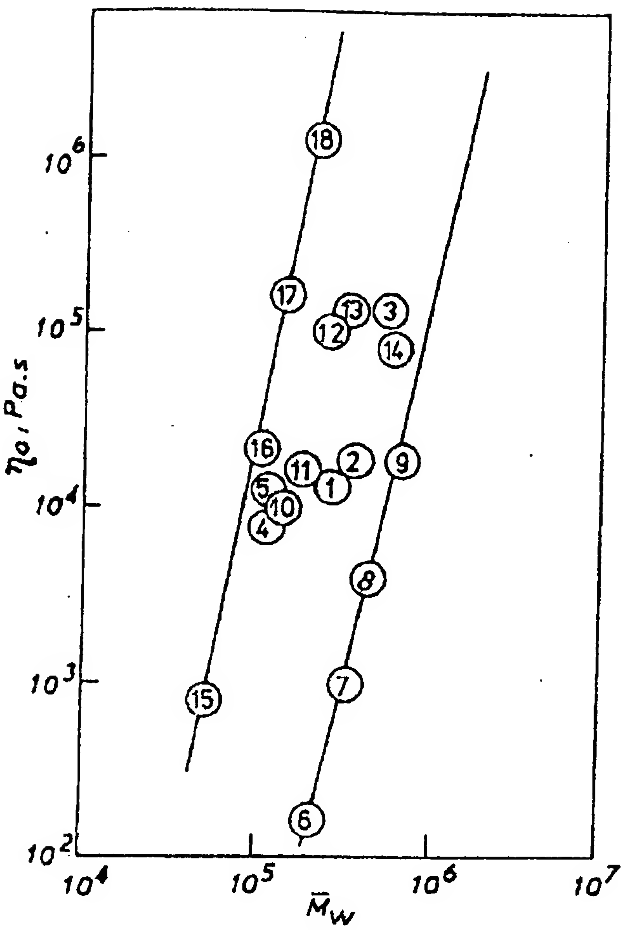

FIG. 79 Melt Newtonian viscosity η_0 of PE at 180°C vs. weight average molecular weight $\bar{M}_w$ of samples examined. (From Ref. 207.)

Sample of PE N	ρ,23°C g·cm^{-3}	I_m g/10 min	$\bar{M}_w$ 10^{-3}	$\bar{M}_w/\bar{M}_n$
LDPE				
1	0.9176	2.14	280	5.4
2	0.9172	1.57	360	5.7
3	0.9176	0.24	550	5.7
4	0.9205	3.12	120	4.9
5	0.9234	2.13	135	4.1
6	0.9128	84.0	210	6.6
7	0.9144	22.4	340	8.8
8	0.9156	6.58	420	9.6
9	0.9176	1.19	690	9.4
10	0.9198	1.75	140	4.5
11	0.9204	1.69	185	5.5
12	0.9211	0.25	275	4.7
13	0.9207	0.24	330	5.8
14	0.9217	0.24	600	6.6
HDPE				
15	0.9780	15.1	52	3.0
16	0.9500	0.38	110	5.3
17	0.9445	0.21	140	8.0
18	0.9440	0.04	220	9.1